

## Supplementary information

# Bioprospecting of Selected Species of Polypore Fungi from the Western Balkans

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**Table S1.** Relationship between EC<sub>50</sub> values in antioxidant activities and analyzed secondary metabolite content.

	Inhibition of LPx	SA•DPPH	SA•OH	FRAP	Fe <sup>2+</sup> chelating ability
Inhibition of LPx	1	0.68	0.76	0.57	0.17
SA•DPPH	0.68	1	0.62	0.85	0.23
SA•OH	0.76	0.62	1	0.26	0.26
FRAP	0.57	0.85	0.26	1	0.13
Fe <sup>2+</sup> chelating ability	0.17	0.23	-0.21	0.13	1
TPC	-0.68	-0.25	-0.70	0.16	-0.30
Vitamin C	0.45	0.35	0.83	0.17	-0.71
β-carotene	-0.74	-0.37	-0.40	-0.16	-0.69
likopen	-0.56	-0.21	-0.11	-0.078	-0.85

Correlation coefficient (*r*)– all values are statistically significant (*P*<0.05); for absolute values of *r*, 0-0.19 is regarded as a ‘very weak’, 0.2-0.39 as a ‘weak’, 0.40-0.59 as a ‘moderate’, 0.6-0.79 as a ‘strong’, and 0.8-1 as a ‘very strong’ correlation.

**Table S2.** Relationship between IC<sub>50</sub> values in enzyme inhibition and analyzed secondary metabolite content

	Tyrosinase inhibitory activity	ACE inhibitory activity
TPC	-0.88	-0.71
Vitamin C	0.66	0.78
β-carotene	-0.60	-0.39
likopen	-0.38	-0.15

*r*\* – all values are statistically significant (*p* ≤ 0.05); for absolute values of *r*, 0-0.19 is regarded as a ‘very weak’, 0.2-0.39 as a ‘weak’, 0.40-0.59 as a ‘moderate’, 0.6-0.79 as a ‘strong’, and 0.8-1 as a ‘very strong’ correlation

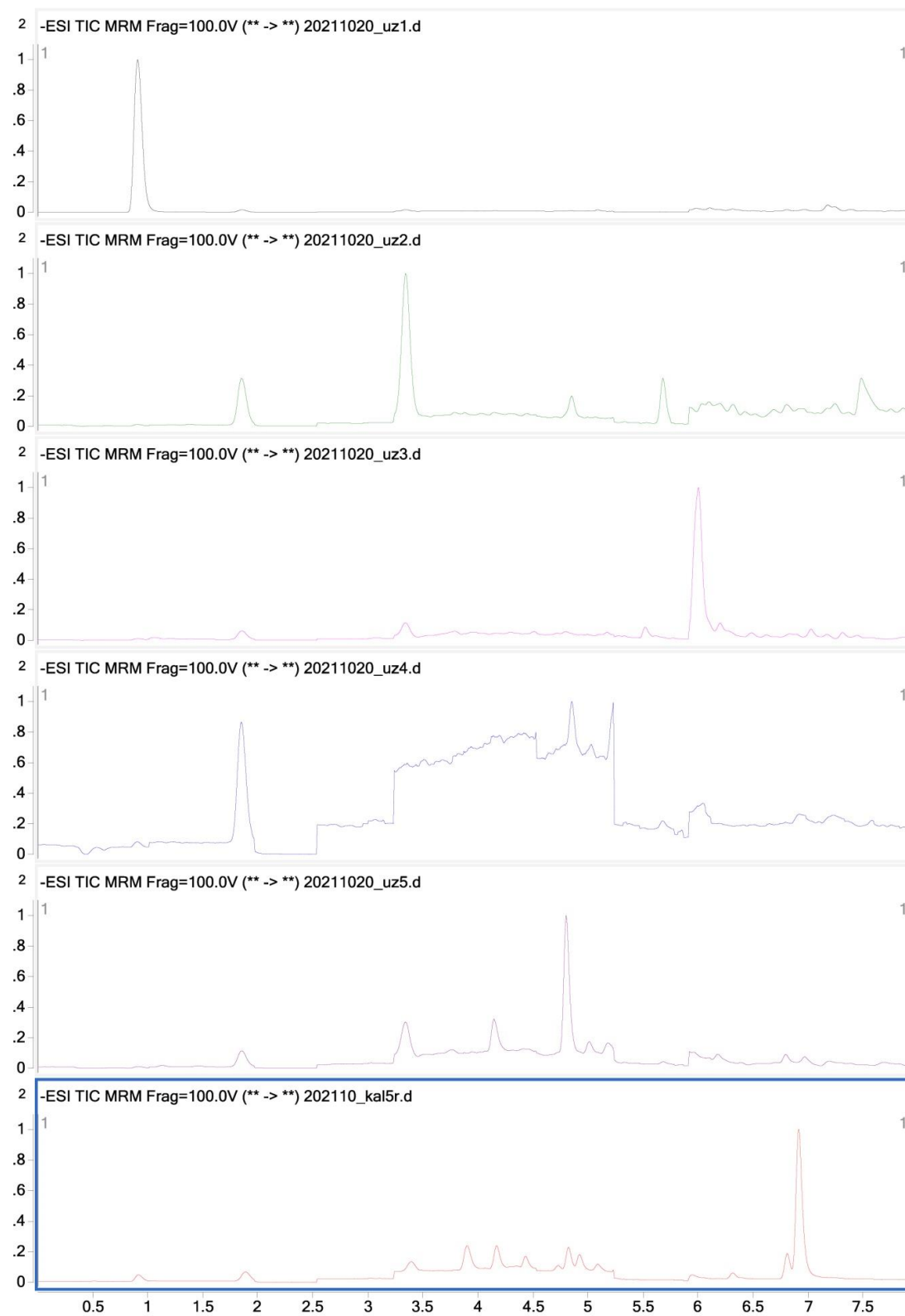
**Table S3.** Selectivity of methanol extracts in antitumor action.

SC <sup>a</sup> in the antitumour action [IC <sub>50</sub> (normal-human cells)/ IC <sub>50</sub> (human malignant cells)]	<i>F.betulina</i>	<i>F. pinicola</i>	<i>G. applanatum</i>	<i>G. lucidum</i>	<i>C. versicolor</i>
MRC-5/HeLa	1.02	1.33	1.38	2.20	1.73
MRC-5/ K562	1.08	1.10	1.10	2.43	1.83
MRC-5/MDA-MB-453	1.02	1.39	1.26	2.12	1.60
BEAS-2B/HeLa	0.95	1.21	1.32	1.83	1.21
BEAS-2B/ K562	1.00	1.00	1.04	1.55	1.28
BEAS-2B/ MDA-MB-453	0.95	1.26	1.20	1.35	1.12

<sup>a</sup>Selectivity coefficient**Table S4.** Mushroom species collected with corresponding family, habitat, sampling locations and usability. According to the map of Figure 1.

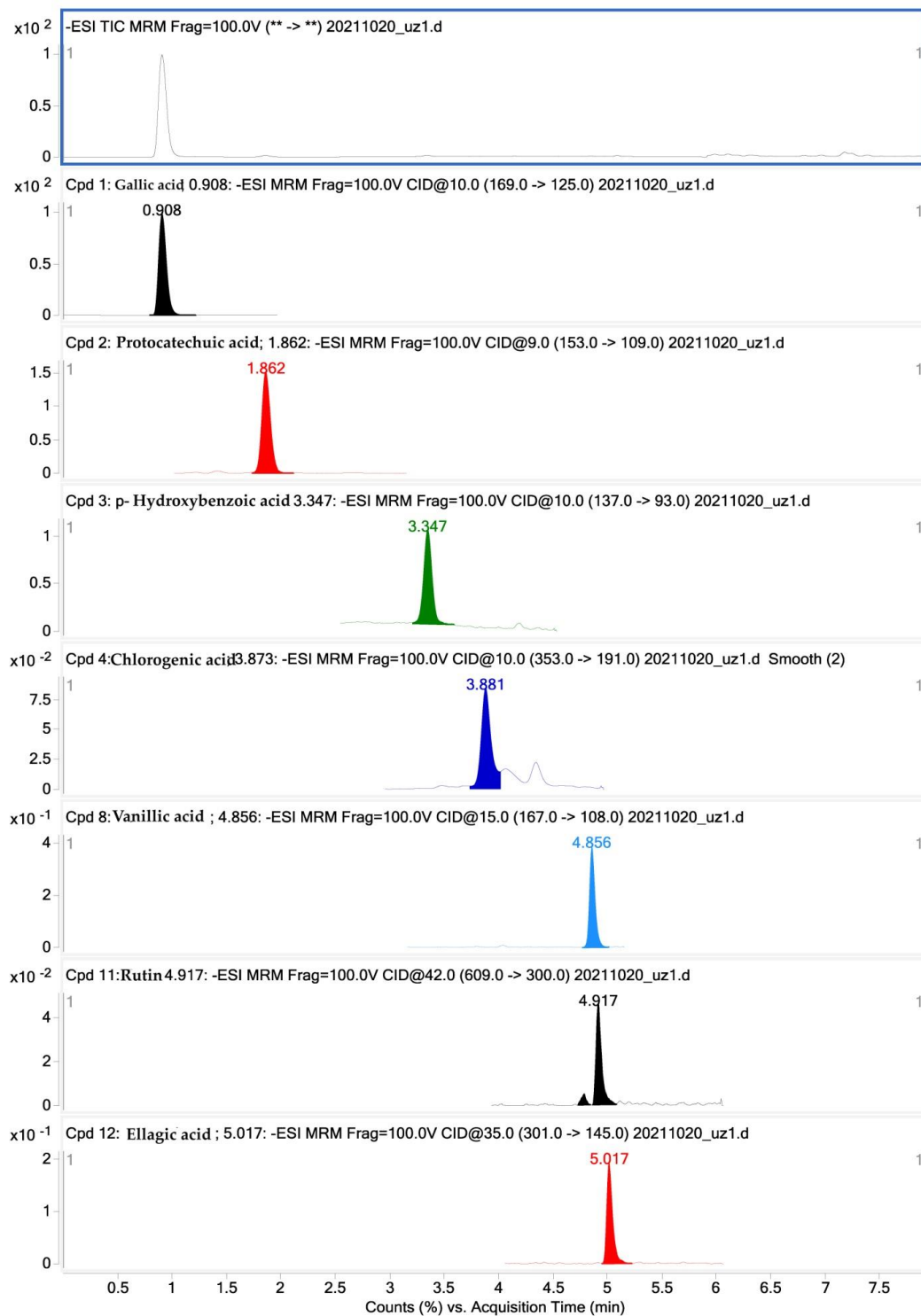
Species	Family	Habitat	Sampling location	Usability/edibility
<i>Fomitopsis betulina</i>	Fomitopsidaceae	Brown rot fungi, common bracket, mainly on birch trees	1-Divcibare, resort on the mountain Maljen (1,104 m), western Serbia; 44° 5'51.68"N 19°59'39.77"E	Medicinal/good
<i>Ganoderma lucidum</i>	Ganodermataceae	White rot fungi, on decaying hardwood trees	2-Avala, mountain (511 m), near Belgrade, Serbia; 44°41'29.93"N 20°30'34.09"E	Medicinal/hard
<i>Ganoderma applanatum</i>	Ganodermataceae	White rot fungi, causes a rot of heartwood of deciduous and coniferous trees	3-village Babe, mountain Kosmaj (626 m), south of Belgrade, Serbia 44°32'4.36"N 20°30'10.41"E	Medicinal/hard
<i>Fomitopsis pinicola</i>	Fomitopsidaceae	Brown rot fungi, causes a stem decay on softwood and hardwood trees	4-Kopaonik, mountain (2,017m), national park, south Serbia 43°18'13.45"N 20°45'55.52"E	Medicinal/hard
<i>Coriolus versicolor</i>	Polyporaceae	White rot fungi, in groups on logs and stumps of deciduous trees	5- Kosutnjak, a large forest area, Belgrade, Serbia 44°45'37.48"N 20°26'24.86"E	Medicinal/good

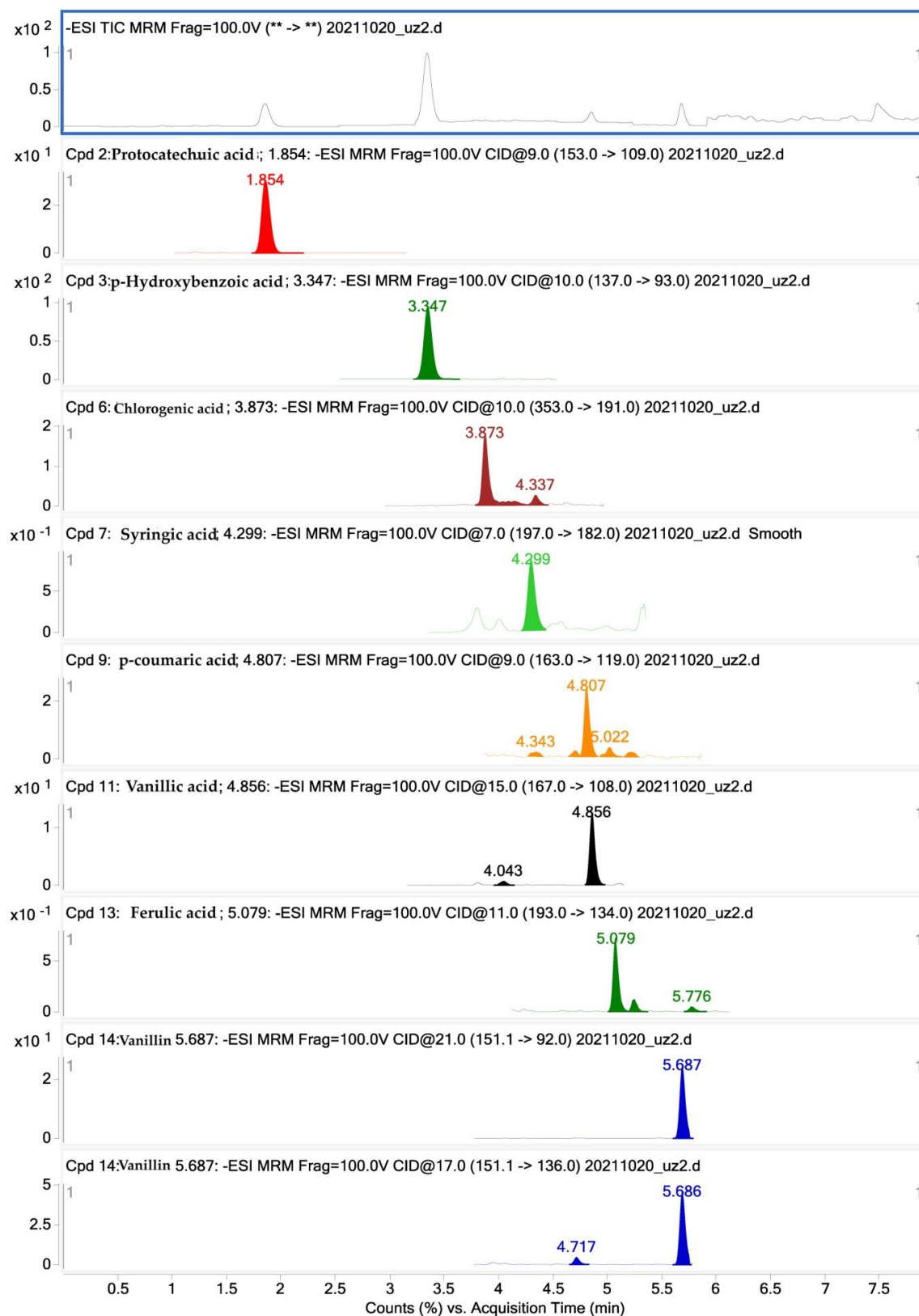
**Figure S1.** Total chromatograms (TIC) of all samples and one calibration sample (*F. pinicola*-uz 1, *F. betulina*-uz 2, *G. applanatum*-uz 3, *G. lucidum*-uz 4, *C. versicolor* –uz 5)

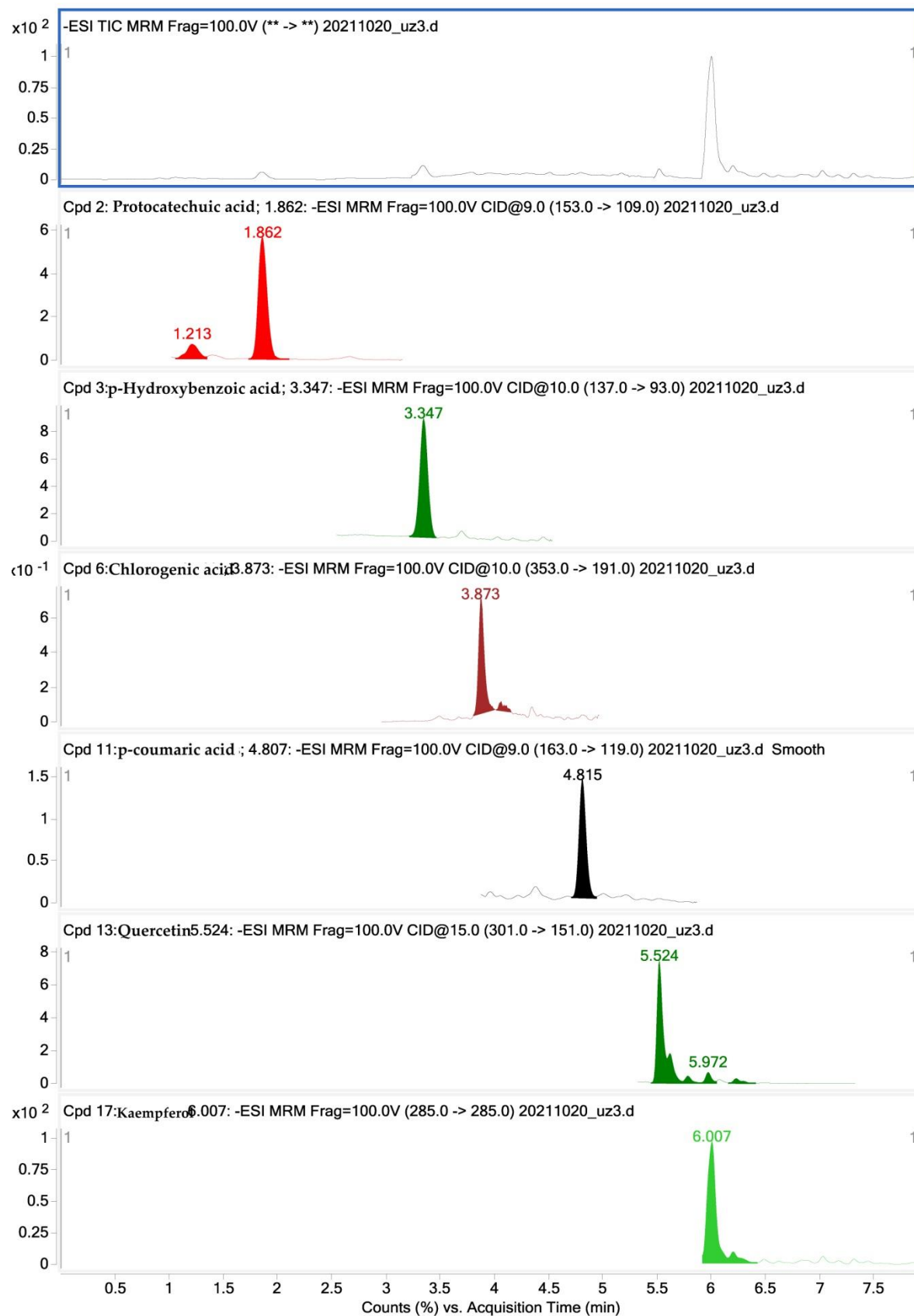


**Figure S2.** Multiple reaction monitoring (MRM) transitions of polyphenols in analyzed samples

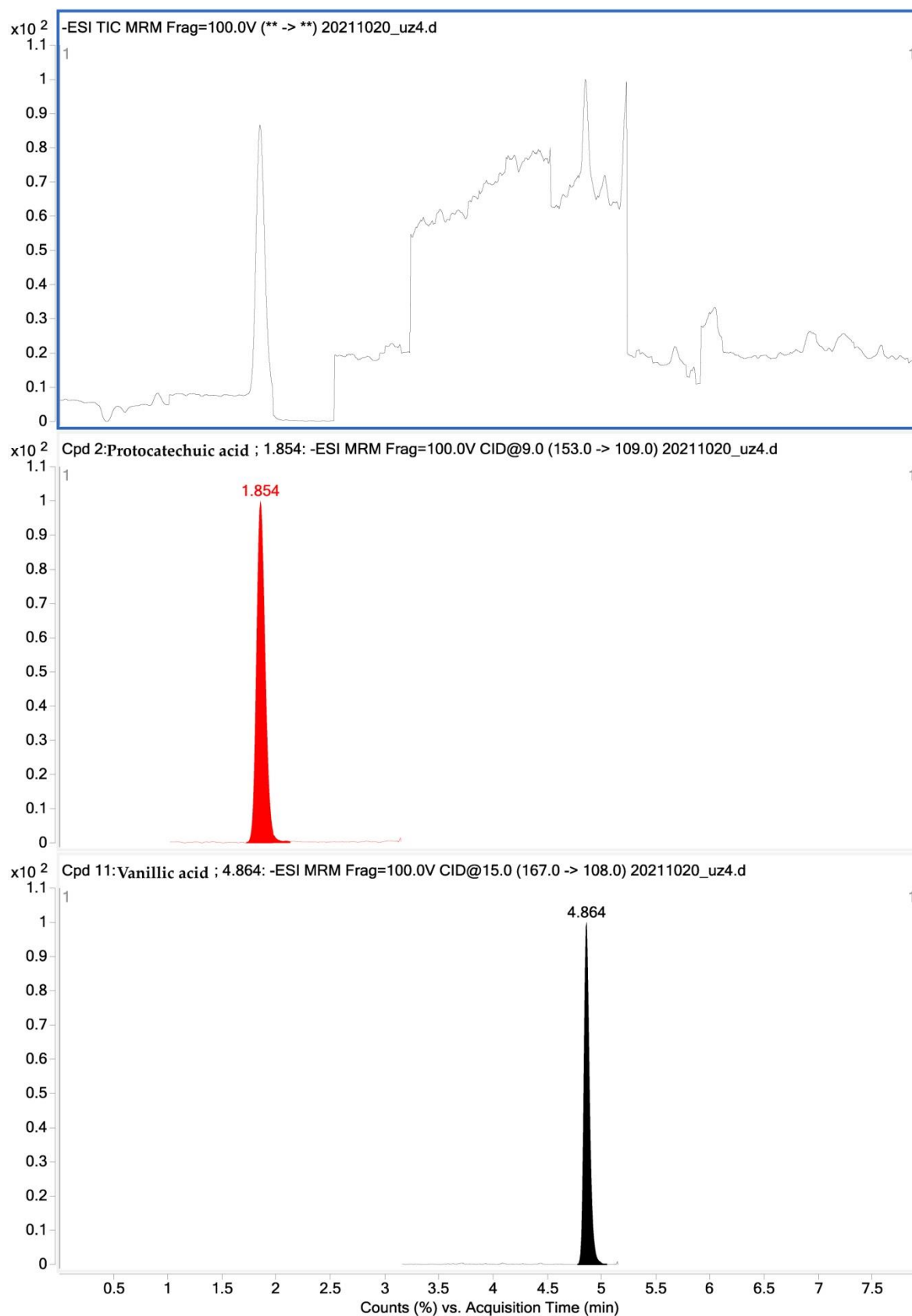
(*F. pinicola* –uz 1, *F. betulina*–uz 2, *G. applanatum*–uz 3, *G. lucidum*–uz 4, *C. versicolor* –uz 5)

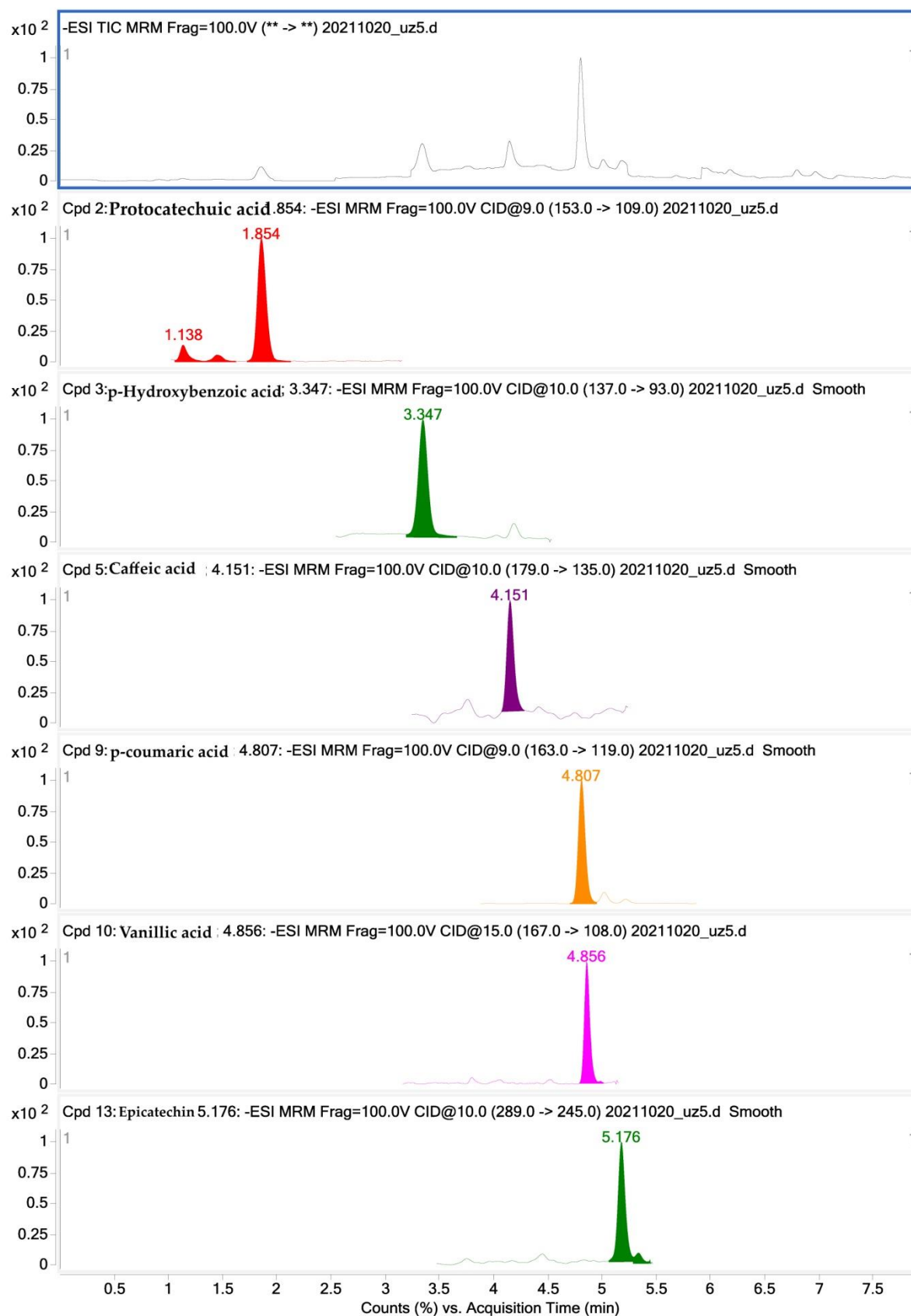












**Supplementary Materials:** The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/molecules29020000/s1>, Table S1: Relationship between EC<sub>50</sub> values in antioxidant activities and analyzed secondary metabolite content; Table S2: Relationship between IC<sub>50</sub> values in enzyme inhibition and analyzed secondary metabolite content; Table S3: Selectivity of methanol extracts in antitumor action; Table S4: Mushroom species collected with corresponding family, habitat, sampling locations and usability. According to the map of Figure 1.; Figure S1: Total chromatograms (TIC) of all samples and one calibration sample (*F. pinicola*-uz 1, *F. betulina*-uz 2, *G. applanatum*-uz 3, *G. lucidum*-uz 4, *C. versicolor* -uz 5); Figure S2: Multiple reaction monitoring (MRM) transitions of polyphenols in analyzed samples (*F. pinicola* -uz 1, *F. betulina*-uz 2, *G. applanatum*-uz 3, *G. lucidum*-uz 4, *C. versicolor* -uz 5)

**Author Contributions:** Conceptualization, J.V., A.K. and M.K.; Methodology, J.V., A.K., M.K., B.Š.-T. and Ž.Ž.; Software and Validation, S.M. and M.K.; Formal analysis, J.V., M.K., A.K., B.Š.-T., Ž.Ž. and V.L.; Investigation, M.K., J.V. and A.K.; Resources, A.K., M.K. and J.V.; Data curation, M.K. and S.M.; writing – original draft preparation, M.K., J.V., B.Š.-T. and S.M.; writing – review and editing, M.K., J.V. and S.M.; Visualization, M.K. and S.M.; Supervision, J.V. and A.K.; Project administration, A.K.; Funding acquisition, A.K., M.K. and J.V. All authors have read and agreed to the published version of the manuscript.

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